

Power Supply for Identification and Control of Electrical
Surgical Tools

now USPN 6,695,837

This application is a continuation-in-part of U.S.
Application 10/099,500 filed on March 13, 2002.

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Field of the Inventions

The devices described below relate to power supplies
intended to supply electrical power to medical instruments.

Background of the Inventions

Many electrical surgical devices are provided in the form
10 of electrical surgical tools, such as a thermal cautery device,
which can be plugged into a separate power supply. Typically,
the power supplied to the electrical surgical tool must be
carefully controlled; thus, the power supply includes circuitry
to convert available AC power to AC, RF or DC power at the
15 desired output power levels or frequencies. For example,
Herzon, Thermal Cautery Surgical Forceps, U.S. Patent 6,235,027
(May 22, 2001), shows thermal cautery forceps using a power
supply to deliver a regulated current to the resistive heating
elements in the forceps. Our own cautery instruments, such as
20 the Starion® Thermal Cautery Forceps, which comprise forceps
with resistive heating elements disposed on the grasping tips,
are designed to work with our PowerPack Surgical Power Supply.
Currently marketed versions of this power supply provide a
current to the resistive heating elements depending on the heat
25 load and temperature of the resistive heating device. In
addition to these two devices, many electrical surgical
instruments are currently marketed to address a variety of